

ELCOMAX[®]

USER'S MANUAL

MDF-9009

USER'S MANUAL

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1 GUIDE

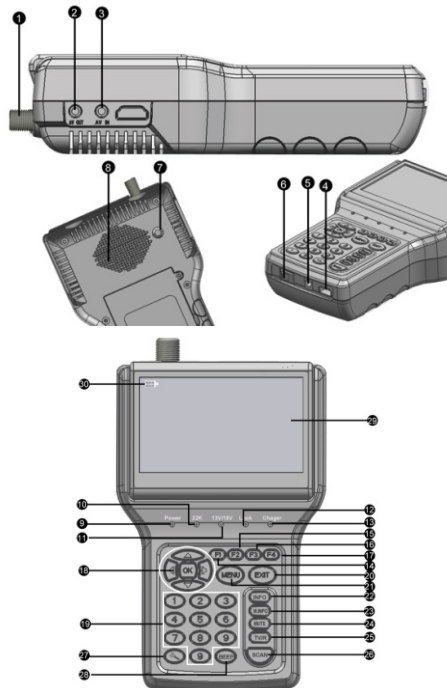
1.1 Important Safety Instructions

Thank you for choosing our product. Before installation, we would like to remind you some notes, which is very important for operating safely and properly, as follows:

- Be sure to read this user manual before starting your operation.
- You must install the dish with correct direction and angle. If the dish is not working properly, contact your local dealer.
- When the unit is suddenly moved to a hot area from a cold area, it may cause some problems. In that case, turn off the power, and turn on again after 1-2 hours.
- Keep meter placed in clean space with sufficient ventilation.
- Do not cover the meter with or place it on a unit that emits heat.
- Clean the case by a soft cloth with a little washing liquid.
- Do not remove the cover.
- Do not let the unit exposed to extreme heat, cold or humid conditions.
- No liquids or any other materials to come inside of the unit.

Warning:All instructions are subject to the latest version of software without prior notice if any new functions are added to the equipment.

1.2 Product Overview & Illustration



NO	Description	FUNCTION
1	LNB IN	Connect to satellite antenna cable
2	AV OUT	Connect to AV port for TV
3	AV IN	Connect to AV port for meter
4	USB Port	Connect to USB memory
5	DC Slot	Connect to Adaptor Input
6	Power switch	Turn on/off meter
7	Torch LED	Night lighting
8	Speaker	Speaker Integrated
9	Power	Power indicator light
10	22K	22KHz indicator light
11	13V/18V	Vertical /Horizontal polarization voltage output light
12	LOCK	Signal lock indicator light
13	Charger (Note1)	Charger indicator light
14	F1	Shows the Subtitle menu ;TV/Radio switch
15	F2	Shows the EPG menu; Audio select
16	F3	Shows the Favorite Manager menu;lock beep alarm
17	F4	Shows Manager Channel menu;TV system switch
18	NAVIGATION KEY	Volume Control or move cursor, channel or change, confirm etc
19	0-9	Select channels or enter programming
20	EXIT	Escape from present menu and save the settings
21	MENU	Show the main menu on the screen or jump back to previous menu in sub-menu setting conditions
22	INFO	To display channel status or various program information of current channel
23	M.INFO	NO function
24	MUTE	Enable or disable the audio output

25	TV/R	TV/Radio switch
26	SCAN	'Quick Search' menu shortcut key
27		Control the torch on/off;TV screen select
28	BEEP	Lock alarm in quick search interface
29	LCD Screen	TV/Radio switch
30		When power on the meter ,displays the battery level

Note1: When the adapter insert dc slot, Charging indicator scintillation three times, then the indicator is often

1.3 INSTALLATION OF METER



2. OUTLINE

- 4.3 Inch High Definition TFT LCD Screen
- Fully DVB-S/DVB-S2
- H.264 Hardware decoding
- Constellation analyzer
- Spectrum analyzer
- Digital meter for signal strength and quality
- Supports scan of Auto ,Blind, Manual or NIT
- Sound and Light Alarm for Locking Signal
- Auto Calculate Angle of AZ ,EL
- Supports DISEQC 1.0/1.1/1.2 ,22khz Tone
- Speaker Integrated
- Support both AV out and AV in
- LNB short protect
- 8.4V/3000mAh Lion Battery Included
- Software upgrade via USB port
- Easy to carry

3. THE MENU OSD INSTRUCTION

If you have installed and connected the cables to the meter, pressing MENU key to display the Main Menu.

- Search
- Spectrum
- Constellation
- SatManage
- Multimedia
- System



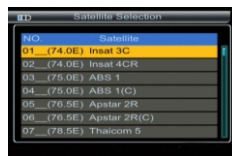
Press the keys of ▲▼◀▶ to move the cursor up or down in the menu interface, then use OK key to confirm a selection.

3.1 Search



3.1.1 Satellite

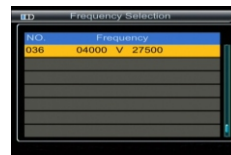
Press ◀▶ key enter the satellite list. Use ▲▼ key to move the cursor, then press OK key to select the satellite that you want.



3.1.2 LNB type: Press ◀▶ key, you can select single/Universal/UnicableSCR etc, according to your physicalNB type.

3.1.3 LOW FREQ / HIGH FREQ: Enter the proper LNB frequency referring to your LNB using the numeric keys or pressing ◀▶ key.

3.1.4 TP Num: Press ◀▶ key into the TP list. Use ▲▼ key to move the cursor then press OK key to select the satellite that you want.



3. 1. 5 Frequency: Frequency of the current transport, Input the value by using the numeric keys.

3.1.6 Symbrte: Symbol rate of the current transport, Input the value by using the numeric keys.

3.1.7 Pol: Press ◀▶ key to change Vertical or horizontal of polarization.

3.1.8 NIT Search: Press ◀▶ key to turn on or off NIT Search

3.1.9 LNB Power: Press ◀▶ key to select the desired option. If your meter is connected to another receiver through LOOP THROUGH support, in case the other receiver is directly connected to the LNB, then select OFF.

3.1.10 LNB 22KHZ: 22 KHz control is automatically set for each LNB alternative. If “Universal” is selected, 22KHz control should be “off state”.

3.1.11 DiSeqC type & Input: Press ◀▶ key to set the port type or number, which get the RF signal from the LNB, if the LNB is connected to DiSeqC switching box.

3.1.12 Motor: If you use the equipment of motor, According to your motor category, the meter provides DiSeqC1.2/USALS. This will make you have exact information to direct your antenna toward a satellite.

Press ◀▶ key to select Motor type, then press OK key into interface of USALS setting



- **Satellite:** Press ◀▶ key to select the desired satellite.
- **Frequency:** Press ◀▶ key to select the TP.
- **Satellite Pos:** Position of satellite, Input the value by using the numeric keys.
- **My Longitude & My Latitude :** Position of local, Input the value by using the numeric keys.
- **Pos Command:** Check the signal locked, the motor moves correct position, press OK key to store the present position.

DiSeqC1.2 SET

Press ◀▶ key to select Motor type, then press OK key into interface of DiSeqC1.2 setting

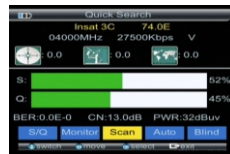


- **Satellite:** Press ◀▶ key to select the desired satellite.
- **Frequency:** Press ◀▶ key to select the TP.
- **Move Step:** The satellite can now be turned into the desired direction using the arrow buttons
- **Continuous Move:** The satellite can be continuous moved to the desired direction.
- **Set Limit:** Set limits for the antenna.
- **Go to Reference:** A starting point for the satellite search function can be selected by pressing the OK key.

If the signal is locked, the present position is automatic stored.

3.1.0.1 Quick Search

In the satellite search interface, pressing OK key will enter the quick search.



If you set Longitude and Latitude Under the “3.6 system setting”, the angle of LNB, the orientation and elevation of antenna, all will be displayed on the screen.

Press **BEEP** key to open locking sound.

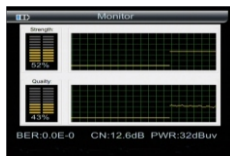
Press **▲▼** key to select the TP frequency.

Press **◀▶** key to select S/Q, Monitor, Scan, Auto, Blind, then press OK key into function.

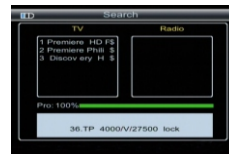
- **S/Q/#**: Enlarge showing of the signal strength and quality



- **Monitor**: Using level to show the strength and quality



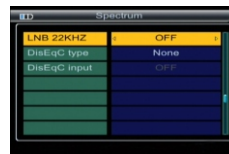
- **Scan**: According to the current TP, search channel,
- **Auto**: According to the user db of satellite, search channel



- **Blind search**: Blind search all frequency. The first, scan all TP, According to these TPs, auto scan programs



3.2 Spectrum



3.2.1 Satellite: Press ◀▶ key into the satellite list. Use ▲▼ key to move the cursor, then press OK key to select the satellite that you want.

3.2.2 LNB type : Press ◀▶ key, you can select single/universal/unicable etc, according to your physical LNB type.

3.2.3 LOW FREQ / HIGH FREQ: Enter the proper LNB frequency referring to your LNB using the numeric keys or pressing ◀▶ key

3.2.4 Pol: Vertical or Horizontal polarization

3.2.5 Center Freq: Input the value by using the numeric keys.

3.2.6 Bandwidth: Press ◀▶ key to change showing of the bandwidth.

3.2.7 LNB 22KHZ: 22 KHz control is automatically set for each LNB alternative.

3.2.8 DiSEqC type Input: Press ◀▶ key to set the port type or number, which get the RF signal from the LNB, if the LNB is connected to DiSEqC switching box.

3.2.9 UnicableSCR

In “3.2.2 LNB type”, if you select UnicableSCR, spectrum will check the SCR frequency.

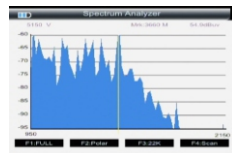
Press ◀▶ key to select keep or Reset.

Keep: Don't send SCR dictate. In the spectrum you can check the work status of the current SCR

Reset: the SCR passage will re-establish. In the spectrum you can check the centre frequency of SCR.

3.2.0.1 Analyzer

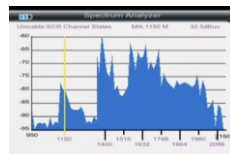
After completing a constitution, press the ok key into Spectrum



- Press ▲▼ key to modify the biggest PWR value.
- Press ◀▶ key to change centre frequency.
- Press F1 key to change the bandwidth.
- Press F2 key to change Polar.
- Press F3 key to change 22K tone.
- Press F4 key to scan local frequency, if the signal is locked, will scan TP.

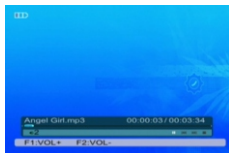
3.2.0.2 Analyzer OF UnicableSCR

In “3.2.2 LNB type”, if you select UnicableSCR, press the ok key into Spectrum



- Press ▲▼ key to modify the biggest PWR value.
- Press ◀▶ key to change frequency of scr.

Press ▲▼ key to select song, then press OK key to play

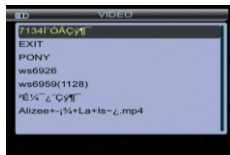


Press F1/F2 key to control volume.

Press ◀▶ key to move the cursor, then press OK key to operate function.

There are functions of Play/Pause, Previous song, Next song and stop and so on.

3.5.2 VIDEO



Press ▲▼ key to select the video file, then press OK key to play.



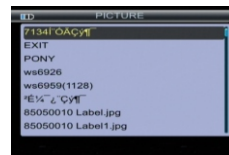
Press ◀▶ key to control volume.

Press MENU key to appear playing bar.

Press ◀▶ key to move the cursor, then the tip will appear on upper right of screen, then press OK key to operate function.

These functions are Backward, Forward, Play/Pause, Previous file, Next file, Stop.

3.5.3 PICTURE

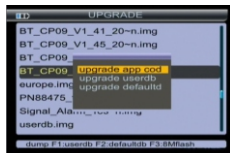


Press ▲▼ key to select picture, then press OK key to play.



Press MENU key to appear playing bar. Press ◀▶ key to move the cursor, then press OK key to operate function. There are functions of Rotating, Delay setting, ZOOM, Play/Pause, Previous Picture, Next picture, Stop.

3.5.4 Upgrade



Press F1 key to dump user database.

Press F2 key to dump default database.

Press F3 key to dump flash.

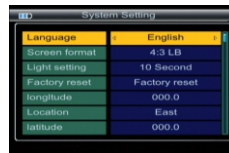
Press ▲▼ key to select update file, then press OK key to select upgrade part: app code; user database; default database.

Example:

- 1.If you want to update main code, please select the main code file like BT_CP09_V1_39_SA~N.img, the size of file is about a few Mbytes, then select upgrade app code.
- 2.If you want to update user database, please select the user db file like user db. img, the size of file is 256k bytes, then select upgrade user db
- 3.If you want to update default database, please select the default file like asia. img, the size of file is 128k bytes, then select upgrade default db.

Warning: while updating meter software data, should not power off and must wait for finish write data.

3.6 System Setting



3.6.1 Language: Press ◀▶ key to select language.

3.6.2 Screen format: Press ◀▶ key to select Screen format : 4:3PS/4:3LB/16:9PS/16:9LB.

3.6.3 Light setting: Press ◀▶ key to control delay of key light: off/5s/10s/20s.

3.6.4 Factory reset: The factory default allows user to restore the factory-reset values, when you press OK key, the Warning window will appear, if you select yes, the system setup will be restored to the default values.

Warning: On selecting factory default you will lost all of data and information, which was previous installed.

3.6.5 Longitude & Latitude; Location & Hemisphere

Input the value by using the numeric; the value must be not higher than 180;

If the location longitude A is higher than 180, the value will be (360-A), then press ◀▶ key to change location/ Hemisphere

Exp:

Local longitude is East 200.

You should input west (360-200)=160

3.6.6 Time Zone : Press ◀▶ key to set Time Zone.

3.6.7 Channel Reset: Press OK key, the channel parameters will be reset to the default values.

3.6.8 Mode, SW VER, Release Time: You can look into information of hardware and software.

4. Channel

4.1 Manager Channel: Press F4 key into the manager channel interface

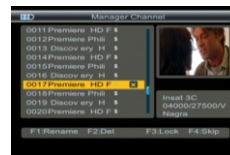


4.1.1 Rename Channel



1. Press F1 key. You will notice the Keyboard menu in screen.
2. Press the arrow keys to Input channel name.
3. Press F3 key to switch caps lock; press F1 key to backspace; press F4 key to complete the edit.
4. Press MENU key, the Warning window will appear, if you select yes, the modification will be saved.

4.1.2 Del Channel



1. Press ▲▼ key to select TV.
2. Press F2 key, the TV will be marked with the symbol "X", marking all channels that you need to delete.
3. Press MENU key, the Warning window will appear, if you select yes, the modification will be saved.

4.1.3 Lock Channel



Press ▲▼ key to select TV.

Press F3 key, then input “0, 0, 0, 0”, the TV will be marked with the symbol lock, marking all TV that you need to lock. Press MENU key, the Warning window will appear, if you select Yes, The modification will be saved.

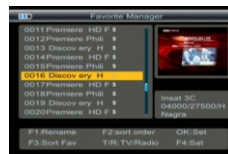
4.1.4 Skip Channel



1. Press ▲▼ key to select TV.
2. Press F4 key, the TV will be marked with the symbol “↑ ↓”.
3. Press ▲▼ key to skip TV, Press F4/OK key to confirm, skip all TV that you need.
4. Press MENU key, the Warning window will appear, if you select yes, the modification will be saved.

4.2 Favorite Manager

Press F3 key into the manager channel sort interface, then press menu key to return favorite manager.



4.2.1 Rename

Please make reference to rename of “4.1.1 Rename channel”

4.2.2 Sort order



1. Press F2 key, you will notice the sub-menu with sort order in screen.
2. Select the desired one of the four sort order in screen and press OK.
3. Press MENU key, the Warning window will appear, if you select yes, the modification will be saved.

4.2.3 Favorite set



Press ▲▼ key to select TV.

Press OK key, the TV will be marked with the symbol '♥'. Press MENU key, the Warning window will appear, if you select yes, the modification will be saved.

4.2.4 Favorite Sort



Press F3 key, you will notice the sub-menu with sort order in screen.

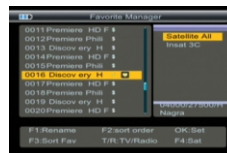
Press ▲▼ key to select sort.

Favorite setting will be put into this sort. Press MENU key, the Warning window will appear, if you select yes, the modification will be saved.

4.2.5 TV/Radio

Press F1 key over 3 seconds to switch TV or radio list.

4.2.6 Sat sort



1. Press F4 key, you will notice the sub-menu with sort order in screen.
2. Press ▲▼ key to select satellite sort, the channel list will be changed.
3. Press MENU key, the Warning window will appear, if you select yes, the modification will be saved.

4.3 EPG

Press the F2 key to show EPG menu



THE PROFESSIONAL EQUIPMENT-----[USER'S MANUAL]

The Guide supplies information such as program listing, starting and ending items for all available programs.

1. Press ▲▼ key to change current channel.
2. Press ◀▶ keys to view the information in 7 days.
3. Press F2 key to view the booked items data.



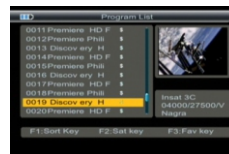
In the booked items menu, press F1 key to cancel the current item, press menu to return.
Press F1 key to items selecting.



1. Press F1 key, return to channel select.
2. Press ▲▼ key to select item.
3. Press F4 key to change detail information page.
4. Press F2 key to book the current item, and enter the booked items menu.

THE PROFESSIONAL EQUIPMENT-----[USER'S MANUAL]

4.4 Program List



Press OK key into program list interface.
Please make reference to “4.2 Favorite Manager”.

4.5 Subtitle



1. Press F1 key, you will notice the sub-menu with sort order in screen.
2. Press ▲▼ key to change subtitle.
3. Press OK key to confirm.

5 Technical Specification

TRANSMISSION STANDARDS	
DVB-S2/S	
SATELLITE INPUT/DEMODULATION	
Connector Type	F Type
Input Frequency	950 to 2150 MHz
Signal Input Level	- 65 to -25 dBm
Band Switch Control	22KHz
LNB Supply	13V/18V, IMax 400mA
Demodulation Type	QPSK,8PSK
Symbol Rate	2<Rs<45 M band(SCPC/MCPC)
LCD FEATURES	
LCD Type	TFT TRANSMISSIVE
Number of Dots	480(RGB) x272
Active area (WxH)	95.04x53.86 mm ²
AV output interface	
Connector Type	3.5 mm Jack
Video Output	CVBS,
Audio output	Stereo Audio L/R output
AV input interface	
Connector Type	3.5 mm Jack
Video input	CVBS,
Audio input	Stereo Audio L/R input
AUDIO/VIDEO PROCESSING	
Video decompression	ASP@L5 HD resolution,H.264 MP&HP@L4,HW JPEG decoding

Resolving rate	PAL-25 frame@720*576,NTSC-30 frame@720*480,
Signal compatibility	Support conversion for different video formats
Video Format	4:3,16:9,By Pan & Scan and Letter Box conversion
Audio output mode	Stereo, Mono,R/L
DATA SERVICE PORT	
Connector	USB
Data protocol	USB2.0 interface
File management system	NTFS,FAT32,FAT16
file format	wma,mp3,mp4,avi,jpg,jpeg,bmp,img
MICROPROCESSOR	
Microprocessor	Amlogic
Clock Frequency	180MHz
SDRAM Memory	512Mbit
Power SUPPLY	
Li_Ion Battery	8.4V/3000mAh
Adapter	OUTPUT :DC12V/1.5A, INTUPT :100-240VAC 50/60Hz
Power consumption	Max. 10W
PHYSICAL CHARACERSTICS	
Size (W x D x H)	205x125x45(mm ³)
Net Weight	0.66KG

6 Troubleshooting

Problem	Possible Causes	What To Do
No display light up	Power switch is not on Run out of batteries	Check to make sure power on. Even on adapter.
No sound or picture, but the front panel power light is ON.	AV IN jack insert, but no video input	Pull out AV IN cable
No sound or picture	The satellite dish is not pointing at the satellite.	Adjust the dish. Check the Signal Level in the Antenna Setup Menu
Bad picture/Blocking Error	No signal or weak signal	Check the cable connections. LNB and other equipment connected between the LNB and the meter and adjust the dish.
Bad picture /Blocking Error	The satellite dish is not pointing at the satellite	Adjust the dish.
	Signal is too strong	Connect a signal attenuator to the LNB input
	Satellite dish is too small	Change to a larger dish
	LNB noise factor too high.	Change to an LNB with lower noise factor
	The LNB is faulty.	Change the LNB
AV out No picture (Video)	The system is connected by SCART cable and TV is not in AV mode.	Check the UHF channel, fixed in your system and turn the UHF properly.
The key is not working	Out of battery	Even on adapter
	Key blocks	make sure no blocks between the front panel

Note: If you still cannot resolve the problem with the above references. Please contact the local dealer or their aftersales service center.